



# UNITED STATES PATENT AND TRADEMARK OFFICE

VW

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,120	05/10/2001	Yoshiharu Hirakata	07977/275001US4910	7408

26171 7590 12/05/2006

FISH & RICHARDSON P.C.  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER

POMPEY, RON EVERETT

ART UNIT	PAPER NUMBER
----------	--------------

2812

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/854,120

Applicant(s)

HIRAKATA ET AL.

Examiner

Ron E. Pompey

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 is/are allowed.
- 6) ☒ Claim(s) 1 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 9-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Mikami et al. (US 6,115,017).

Mikami discloses the limitations of:

forming a first conductive film (54, fig. 7) over a first substrate;

forming a first insulating film (16, fig. 7) over said first conductive film;

forming a thin film transistor over said first insulating film (51, fig. 7);

forming a second insulating film over the thin film transistor(52, fig. 7);

forming a pixel electrode over the second insulating film (7, fig. 7) (col. 7, lns. 6-56);

forming a second conductive film over a second substrate (9, fig. 1); and

providing liquid crystals between said thin film transistor and said second conductive film;

providing a liquid crystal layer between a plurality of pixel electrodes and an electrode opposite to said pixel electrodes, and making said liquid crystals monostable

Art Unit: 2812

monostable by applying an electric field between said pixel electrodes and said electrodes opposite to said pixel electrodes in such a manner that all of said pixel electrodes are given a fixed electric potential during a common time period (col. 5, 27-38); and

wherein said liquid crystals is made monostable by an electric field applied to said liquid crystal, wherein liquid crystals of said liquid crystal layer have bistability or hysteresis characteristics by said first conductive film and said second conductive film, while electric voltages having the same polarity are applied to said pixel electrode (col. 27, ln. 47 – col. 48, ln.67 where Vmemory is the voltage applied to the pixel electrode). It is inherent that an electric field will be produced when voltages are applied to two opposing electrodes as shown in Noguchi incorporated by reference.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mikami et al. (US 6,108,061) in view of Sako et al. (US 6,108,061).

Mikami does not disclose the claimed limitation(s) of:

while an ultraviolet ray is applied to said liquid crystals.

However,

a. Sako discloses the above claimed limitations regarding:

while an ultraviolet ray is applied to said liquid crystals (col. 8, Ins. 16-25).  
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Sako with Mikami, because the ultraviolet ray forms a polymer reticulate structure, from the mixture of liquid crystal material and polymer material, producing a stable state for the liquid crystal elements in the liquid crystal material.

***Allowable Subject Matter***

5. Claims 2, 3 and 4 are allowed.
6. Claims 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, either singly or in combination, fails to disclose the limitations of: while electric voltages having the same polarity are applied to said pixel electrode and an ultraviolet ray is irradiated to said liquid crystals.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Iwaki et al. (US 5,600,485) electric voltages having the same polarity are applied to said pixel electrode and an ultraviolet ray is irradiated to said liquid crystals.

Noguchi (US 5,040,875) voltage applied to opposing electrodes produce an electric field.

***Response to Arguments***

2. Applicant's arguments filed 9-05-06, pertaining to claims 1-4 and 6-14 has been fully considered but they are not persuasive. The applicant states, with respect to independent claims 1 and 6-8, applicants request reconsideration and withdrawal of this rejection because while Mikami describes a display apparatus that uses liquid crystals, it is silent as to whether the liquid crystals in the display apparatus are monostable or bistable. While Mikami as recited in claims 1 and 6-8.

However, Mikami does disclose making the liquid crystals monostable as disclosed in column 28, Ins. 6-32.

***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

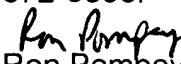
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2812

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ron E. Pompey whose telephone number is (571) 272-1680. The examiner can normally be reached on 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Lebentritt can be reached on (571) 272-1873. The fax phone number for the organization where this application or proceeding is assigned is 703-

872-9306.

  
Ron Pompey  
AU: 2812  
November 27, 2006

  
MICHAEL LEBENTRITT  
SUPERVISORY PATENT EXAMINER